
Subject: Re: passing structure elements... by value?
Posted by [Vince Hradil](#) on Tue, 17 Jul 2001 15:54:16 GMT
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Not sure this is a structure issue, but instead an array issue!

Array elements are passed by value. Instead you have to do:

```
IDL> struct = {A:0, B:0} & big = replicate(struct,3)
```

```
IDL> tmpbig = big[0]
```

```
IDL> test, tmpbig
```

```
IDL> big[0] = tmpbig
```

```
IDL> print, big
```

```
{ 1 1}{ 0 0}{ 0 0}
```

Or how about changing your pro to a function?

```
function test, mod_struct
```

```
  for i=0, n_tags(mod_struct)-1 do begin
```

```
    mod_struct.(i) = mod_struct.(i) + 1
```

```
  endfor
```

```
  return, mod_struct
```

```
end
```

then do:

```
IDL> struct = {A:0, B:0} & big = replicate(struct,3)
```

```
IDL> big[0] = test(big[0])
```

```
IDL> print, big
```

```
{ 1 1}{ 0 0}{ 0 0}
```

NB I haven't tested any of the above code, since I am away from my "IDL computer" at the moment ;^)

On Fri, 13 Jul 2001 17:03:39 +0100, Randall Skelton <rhskelto@atm.ox.ac.uk> wrote:

> Hi all,

>

> I am seem to be somewhat confused on passing structure... this *almost*

> seems like one of those dreaded 'pass by reference/pass by value'

> problems...

>

> I have a simple routine that increments the value of a structure:

>

> pro test, mod_struct

> for i=0, n_tags(mod_struct)-1 do begin

> mod_struct.(i) = mod_struct.(i) + 1

> endfor

> end

>

> As expected, this will increment all of the values in a passed structure.

>

> IDL> struct = {A:0, B:0} & big = replicate(struct,3)

> IDL> print, big

> { 0 0}{ 0 0}{ 0 0}

> IDL> test, big

```
> IDL> print, big
> { 1 1}{ 1 1}{ 1 1}
>
> But, when I try and increment a single element in the structure it fails?
>
> IDL> struct = {A:0, B:0} & big = replicate(struct,3)
> IDL> test, big[0]
> IDL> print, big
> { 0 0}{ 0 0}{ 0 0}
> ^^^^^^^^^^^^^
>
> I expected the ^^ element above to be ones? Is there any way to force IDL
> to pass this by reference instead of passing by value? It would be nice if
> you could put brackets around the thing you want to pass by reference...
> something like '(big[0])'
>
> Have a good weekend all!
> Randall
>
> PS: I'm sure Liam's new book answers this...
>
```
